

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Cancelled)

30. (Cancelled)

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Currently Amended) A method for supporting a transaction application workload and a parallel application workload on one server cluster including server nodes at one domain and configured to process the transaction application workload and the parallel application workload, the method comprising:

receiving a request from a client to execute the transaction application workload on the one server cluster, ~~the one server cluster including server nodes at one domain~~ the transaction application comprising a plurality of discrete events that are less numerically intensive than the parallel application which comprises a numerically intensive application;

identifying a service level agreement negotiated with the client for the transaction application workload, the service level agreement specifying performance requirements for execution of the transaction application workload on the one server cluster and acceptable performance of execution of the one server cluster in response to the transaction application and the parallel application;

assigning a subset of the server nodes in the one server cluster at the one domain to execute the transaction application workload;

monitoring execution of the transaction application workload on the subset of server nodes assigned to execute the transaction application workload to determine whether the performance requirements for execution of the transaction application workload and the acceptable performance of execution of the one server cluster in response to the transaction application and the parallel application specified in the service level agreement are being met; and

responsive to a determination that the performance requirements for execution of the transaction application workload specified in the service level agreement are not being met, dynamically reassigning one or more of the server nodes in the one server cluster at the one domain assigned to

execute the parallel application workload to the execution of the transaction application workload in order to meet the performance requirements for execution of the transaction application workload and the acceptable performance of execution of the one server cluster in response to the transaction application and the parallel application specified in the service level agreement,

wherein a server node assigned to execute the transaction application workload cannot be concurrently assigned to execute the parallel application workload and a server node assigned to execute the parallel application workload cannot be concurrently assigned to execute the transaction application workload.

35. (Previously Presented) The method of claim 34, further comprising:

monitoring execution of the transaction application workload on the subset of server nodes assigned to execute the transaction application workload to determine whether the performance requirements for execution of the transaction application workload specified in the service level agreement will continue to be met; and

responsive to a determination that the performance requirements for execution of the transaction application workload specified in the service level agreement will not continue to be met, dynamically reassigning one or more of the server nodes in the one server cluster at the one domain assigned to execute the parallel application workload to the execution of the transaction application workload in order to continue to meet the performance requirements for execution of the transaction application workload specified in the service level agreement.

36. (Previously Presented) The method of claim 34, wherein responsive to a determination that the performance requirements for execution of the transaction application workload specified in the service level agreement are not being met, the method further comprises:

assigning one or more of the server nodes in the server cluster at the one domain that are uninitialized to the execution of the transaction application workload in order to meet the performance requirements for execution of the transaction application workload specified in the service level agreement, an uninitialized server node being a server node that has the transaction application and its prerequisites installed, but has not been initialized.

37. (Previously Presented) The method of claim 34, wherein responsive to a determination that the performance requirements for execution of the transaction application workload specified in the service level agreement are not being met, the method further comprises:

assigning one or more of the server nodes in the server cluster at the one domain that are uninstalled to the execution of the transaction application workload in order to meet the performance requirements for execution of the transaction application workload specified in the service level agreement, an uninstalled server node being a server node that does not have the transaction application and its prerequisites installed.

38. (Previously Presented) The method of claim 34, wherein responsive to a determination that the performance requirements for execution of the transaction application workload specified in the service level agreement are not being met, the method further comprises:

assigning one or more of the server nodes in the server cluster at the one domain that are in a shared pool of nodes to the execution of the transaction application workload in order to meet the performance requirements for execution of the transaction application workload specified in the service

level agreement, the shared pool of nodes in the server cluster at the one domain comprising unassigned server nodes that can be assigned to the execution of either the transaction application workload or the parallel application workload.

39. (Previously Presented) The method of claim 34, wherein the transaction application workload comprises stock trades.

40. (Previously Presented) The method of claim 34, wherein the parallel application workload involves optimization of a stock portfolio.

41. (Previously Presented) The method of claim 34, wherein the service level agreement negotiated with the client for the transaction application workload is also applicable to the parallel application workload.

42. (Previously Presented) The method of claim 34, wherein the performance requirements for execution of the transaction application workload specified in the service level agreement comprises throughput requirements

43. (Previously Presented) The method of claim 34, wherein the performance requirements for execution of the transaction application workload specified in the service level agreement comprises response time requirements.

44. (Previously Presented) The method of claim 34, wherein the performance requirements for execution of the transaction application workload specified in the service level agreement comprises availability requirements.

45. (Previously Presented) The method of claim 34, wherein the performance requirements for execution of the transaction application workload specified in the service level agreement comprises downtime requirements.

46. (Previously Presented) The method of claim 34, wherein the service level agreement negotiated with the client for the transaction application workload further specifies penalty functions when the service level agreement is violated.

47. (Previously Presented) The method of claim 34, wherein monitoring execution of the transaction application workload on the subset of server nodes assigned to execute the transaction application workload comprises:

monitoring one or more of a transaction rate, a transaction response time, availability of a server node, and utilization of a server node.

48. (Previously Presented) The method of claim 34, wherein reassignment of the one or more server nodes assigned to execute the parallel application workload to the execution of the transaction application workload is based on prioritization of the service level agreement negotiated for the transaction application workload.

49. (Previously Presented) The method of claim 48, wherein prioritization of the service level agreement negotiated for the transaction application workload is based on a penalty associated with violating the service level agreement.